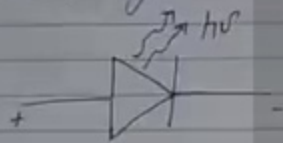
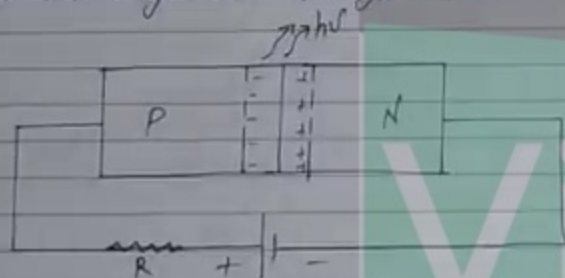


LED (Light Emitting Diode) → It is heavily doped P-N Junction diode which converts electrical energy into light energy.
This diode emits light under forward biasing.

Symbol →

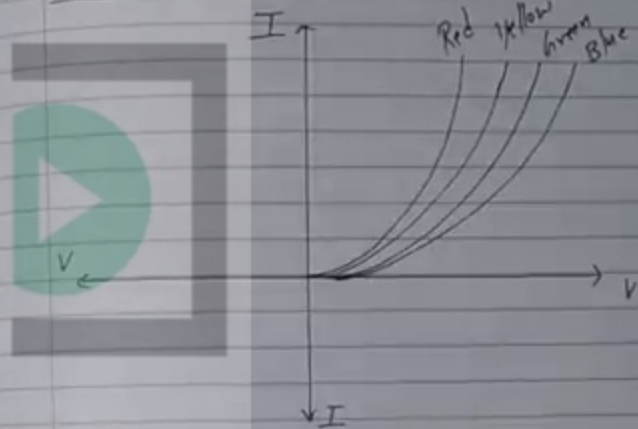


Construction → In this P-N Junction diode is connected from a battery through resistance R which controls the brightness of light emitted.



WORKING → When P-N Junction is forward biased, electrons & holes move towards opposite sides of the junction. Therefore excess minority carriers on the either side of junction boundary, recombine.

V-I Characteristics →



→ Forward Current Conducted by Junction determines the intensity of the light emitted.

Advantages of LED →

- 1 → long life
- 2 → low operational voltage
- 3 → less power consume
- 4 → cheap & easy to handle

USES OF LED →

- 1 → In Burglar-alarm system
- 2 → In Calculators, digital watches
- 3 → In traffic lights



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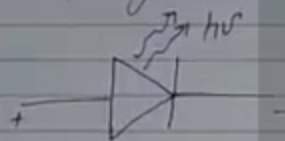
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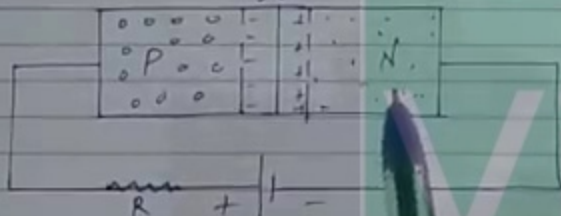
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LED (Light Emitting Diode) → It is heavily doped P-N Junction diode which converts electrical Energy into light Energy.
This diode emits light under forward biasing.

Symbol →

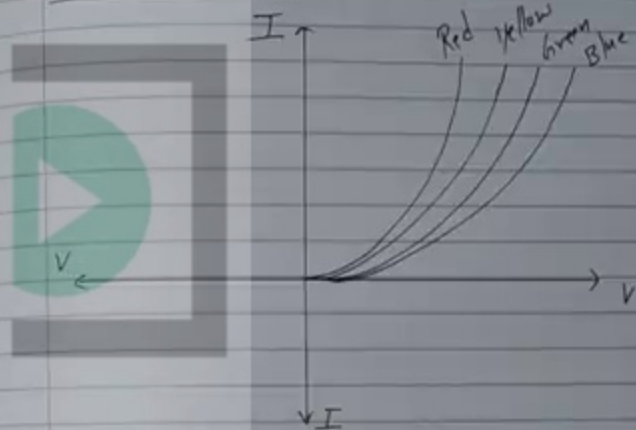


Construction → In this P-N Junction diode is connected from a battery through resistance R which controls the brightness of light emitted.



WORKING → When P-N Junction is forward biased, electrons & holes move towards opposite sides of the junction. Therefore, excess minority carriers are injected from either side of the junction.

V-I Characteristics →



→ Forward Current Conducted by Junction determines the Intensity of the light emitted.

Advantages of LED →

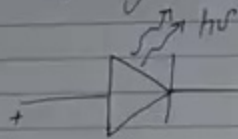
- 1 → long life
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USES OF LED →

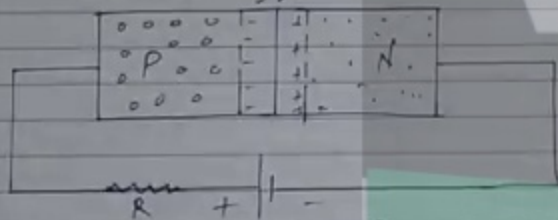
- 1 → In Burglar-alarm System
- 2 → In Calculators, digital watches
- 3 → In traffic lights

This diode emits light under forward biasing

Symbol $\rightarrow$



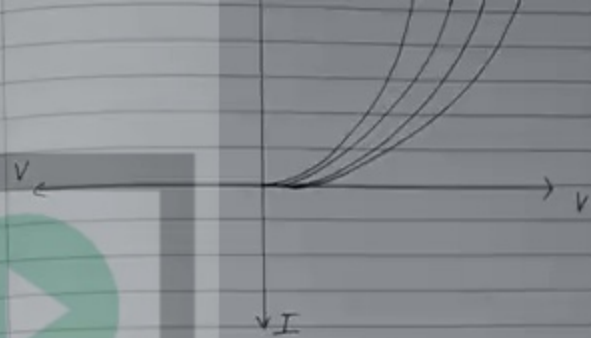
Construction $\rightarrow$ In this P-N Junction diode is connected from a battery through resistance R which controls the brightness of light emitted.



WORKING $\rightarrow$ When PN Junction is forward biased, electron & holes move towards opposite side of junction. Therefore excess minority carriers on the either side of junction boundary, recombine with majority carriers near the junction.

ON recombination of e^- & hole, the energy is given out in the form of light. The released energy is nearly equal to energy gap.

$$\therefore E_g = h\nu$$



$\rightarrow$ Forward Current Conducted by Junction determines the intensity of the light emitted.

Advantages of LED $\rightarrow$

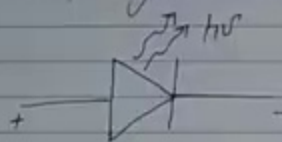
- 1 $\rightarrow$ long life
- 2 $\rightarrow$ low operational voltage
- 3 $\rightarrow$ less power consume
- 4 $\rightarrow$ cheap & easy to handle

USES OF LED $\rightarrow$

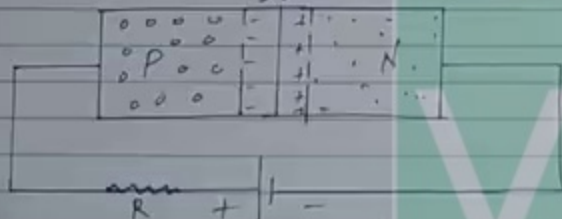
- 1 $\rightarrow$ In Burglar-alarm system
- 2 $\rightarrow$ In Calculators, digital watch
- 3 $\rightarrow$ In traffic light
- 4 $\rightarrow$ In remote control.

LED (Light Emitting Diode) → It is heavily doped P-N Junction diode which converts electrical energy into light energy.
This diode emits light under forward biasing.

Symbol →

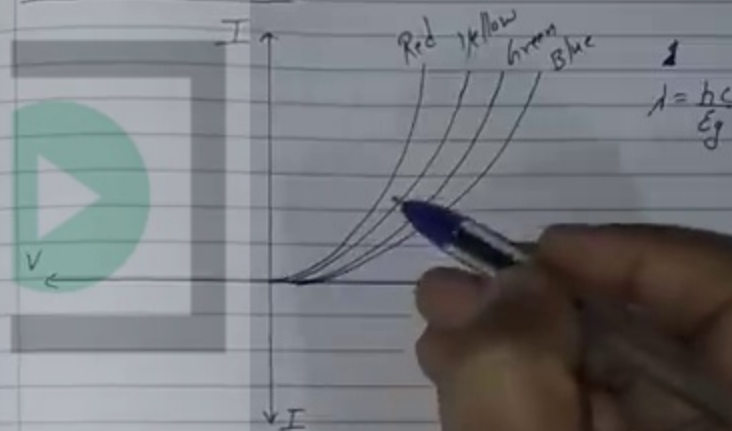


Construction → In this P-N Junction diode is connected from a battery through resistance R which controls the brightness of light emitted.



WORKING → When P-N Junction is forward biased, electrons & holes move towards opposite sides of the junction. Therefore excess minority carriers on the either side of junction boundary, recombine.

V-I Characteristics →



→ Forward Current Conduction
the intensity of the light

Advantages of LED →

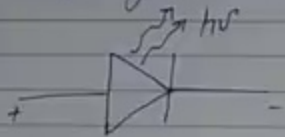
- 1 →
- 2 →
- 3 →
- 4 →

USES OF LED →

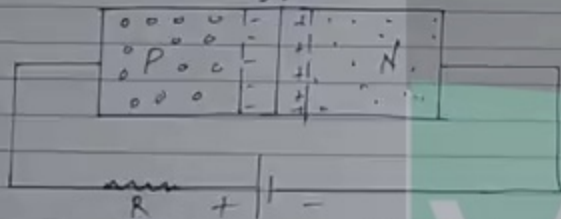
- 1 → In Burg
- 2 → In Calcu
- 3 → In

LED is a light emitting diode which converts electrical energy into light energy. This diode emits light under forward biasing.

Symbol $\rightarrow$

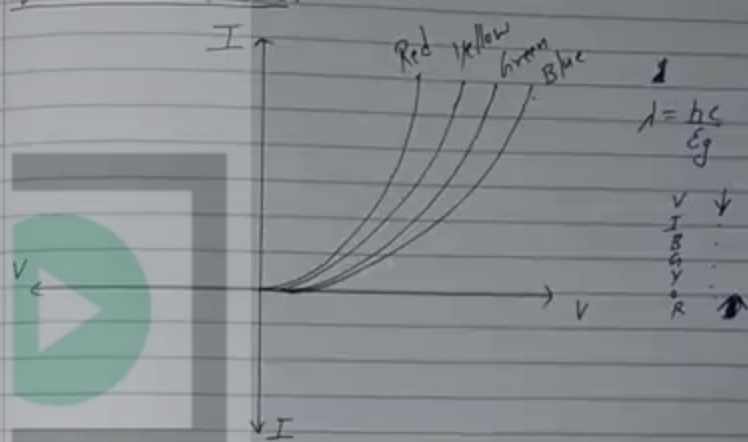


Construction: In this P-N Junction diode is connected from a battery through resistance R which controls the brightness of light emitted.



WORKING:- When P-N Junction is forward biased, electrons & holes move towards opposite side of junction. Therefore excess minority carriers on the either side of junction boundary, recombine with majority carriers near the junction.

ON recombination of e^- & hole, the energy is given out in the form of light. The released energy is



$\rightarrow$ Forward Current Conducted by Junction determines the Intensity of the light emitted.

Advantages of LED:-

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